

## Exploring Pay for Success Opportunities in Memphis and Shelby County Executive Summary and Project Overview

Social Finance was engaged by the Pyramid Peak Foundation to explore the potential for Pay for Success (PFS) financing to better serve vulnerable populations in Memphis and Shelby County in five issue areas: blight, home visiting, pre-kindergarten, recidivism, and teacher training. The project launched in September 2014 with the support of officials representing the Offices of the Mayor of Memphis and Shelby County.

The following is a compilation of deliverable materials produced over the five-month project.

- **Draft Proposal for the Scope of Social Finance's Activities in Memphis and Shelby County** – Definition of project and scope of work
  - *Phase I:* Landscape assessment—assessment of best-fit PFS issue areas based on size and concentration of population in need, existence of evidence-based interventions, and likelihood of savings generation and positive outcomes relevant to a specific government agency.
  - *Phase II:* Feasibility assessment—development of action steps for launching most PFS-ready projects, including identification of: local service providers capable of expanding and implementing evidence-based interventions, suggested project parameters, directional return on investment (ROI), and identification of likely payor of outcomes.
- **Options Memo** – Definition and exploration of Pay for Success (PFS) applications, matching defined sub-population (as identified in target population memo), with potential services contracting could be effectively implemented in the City of Memphis and Shelby County. Eight options were identified and explored. The analysis focused on whether any issues contained (1) concentrated and definable population in need, (2) evidence based interventions addressing the vulnerable population, (3) service providers capable of implementing evidence based interventions (4) potential 'payors' for a PFS outcomes payment, and (5) positive social Return on Investment (ROI). Based on the aforementioned criteria, three options were identified as most PFS ready (pediatric asthma, recidivism / workforce development, and maternal health and home visiting).
- **Roadmaps** – Definition of outstanding questions and next steps to launch a PFS structuring project for most PFS-ready options. The Roadmaps are intended as guides for moving the projects forward in Memphis and Shelby County. In particular, the document reiterates the need to establish a payor before proceeding further with any PFS initiative.

The materials are arranged in chronological order to support the Landscape study methodology. The compilation is directional and preliminary, and memorializes the work that the stakeholders at Pyramid Peak and the Offices of the Mayor of Memphis and Shelby County performed. Core concepts may be used for future reference or conversations with outside stakeholders, but should be emphasized as directional and preliminary.

This work would not have been possible without the generous support of Pyramid Peak; officials at the Offices of the Mayor of Memphis and Shelby County; and over 60 experts, service providers, and

public sector personnel within the Greater Memphis area who shared time, wisdom, and insights with us. Any errors in this document are solely attributable to Social Finance.

## Exploring Social Impact Bond Opportunities in Memphis, TN

### Draft Proposal for Landscape and Feasibility Studies

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**Project Context:** Stakeholders in Memphis are interested in exploring the use of Pay for Success (PFS) and Social Impact Bond (SIB) financing to support social services programming. Industrial Economics, Inc. recently completed a feasibility study sponsored by the EPA to understand PFS applications in Memphis. Since the completion of that study, stakeholders from government and philanthropy have continued to explore PFS opportunities. Multiple potential issue areas have been identified as promising candidates for PFS financing including: blight, juvenile justice, early childhood education, and maternal/prenatal care.

**Project Objectives:** Memphis stakeholders including city government and the Pyramid Peak Foundation are pursuing technical assistance with two key objectives. The first objective is to prioritize the issue areas that are the best fit for a PFS / SIB project. The second objective is to determine the feasibility of interventions and providers within priority issue areas. Core to a successful PFS / SIB project are: a pressing social need and evidence-based intervention, a strong provider capable of replication and scale, a committed payor (typically government) and a positive ROI for the payor and investors. Social Finance would address the following questions over the course of a four-month project.

#### Key Questions:

##### 1. Landscape *(four issue areas)*

- Geographies / policy priority
  - Which issue areas link to policy interest?
  - Are there geographies where these issue areas are particularly relevant?
- Target population
  - What is the underserved need addressed by the proposed SIB?
  - Is the need concentrated in a particular segment of the target population (e.g., age, ethnicity, gender)?
  - Would a SIB address relevant outcomes for the individuals served?
  - Are data available for each issue area and target population to support a transaction?
- Costs
  - What is the current cost of supporting each affected population? To government? To society?
  - What are the costs of implementing interventions?
  - What is the scale of investment to achieve impact?
- Intervention and Providers
  - Are there interventions that could plausibly meet the need and generate savings or benefits?
  - What providers currently operate in the target geography?

## 2. Feasibility

- Intervention and Providers
  - What evidence-based interventions exist? How strong is the evidence?
  - What are the outcomes associated with the intervention? What effect size could we expect based on the evidence?
  - Are these outcomes linked to economic savings? Societal benefit?
  - What is the capacity of providers to scale the intervention?
  - Can the savings and benefits be estimated for the Memphis area specifically?
  - Can the intervention be scaled with fidelity?
- Payor
  - Where do savings accrue within government? Single agency? Multiple agencies?
  - Is a payor willing to pay for outcomes beyond savings (e.g., longer term societal benefits)?
  - Does a payor have budget authority? Will legislative appropriation be necessary? Possible?
  - Is a payor willing to support an investor-friendly return
- Savings and cost-benefit analysis
  - Does the transaction support an investor-friendly return?
  - Can savings be increased by additional pricing of positive outcomes for society?
  - Can overall savings be amplified by savings incurred outside of the investment window (e.g., longer-term benefits to society)?

### Project Milestones and Deliverables<sup>1</sup>

Project Phase	Tasks	Deliverables
<b>Landscape:</b> Understand populations, geographies, potential interventions, and providers	<ul style="list-style-type: none"> <li>• Summarize target population need and geography</li> <li>• Define cost drivers for government spending</li> <li>• Screen potential interventions and providers</li> </ul>	<ul style="list-style-type: none"> <li>• Findings memo</li> </ul>
<b>Feasibility:</b> Evaluate the potential positive return on investment (ROI)	<ul style="list-style-type: none"> <li>• Identify specific interventions and providers</li> <li>• Estimate anticipated savings for effective and promising interventions</li> <li>• Determine level of payor interest and outcomes pricing</li> <li>• Articulate timing of costs relative to accrual of savings</li> <li>• Develop cost-benefit analysis / ROI</li> </ul>	<ul style="list-style-type: none"> <li>• Analysis model</li> <li>• Findings memo</li> </ul>

**Project Budget and Staffing:** Given the depth of content requested, Social Finance proposes a project that would include: two associates (40% FTE each), one associate director (40% FTE), and senior management oversight (20% FTE). We estimate the cost for projects as: \$40,000 per month over four months (\$160,000 total) plus travel and expenses.

<sup>1</sup> Illustrative table; scope, tasks, and deliverables to be determined.

## Memphis Pay for Success Feasibility Study

### Preliminary PFS Options Analysis

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## Executive Summary

This memo examines whether Pay for Success (PFS) contracting can be effectively implemented in the City of Memphis and Shelby County in any of five issue areas: blight – addressing both the mitigation of negative spillovers from vacant or abandoned properties and health care costs related to asthma; early childhood services—including home visiting programs focused on prenatal health and parenting skills and school readiness for young families; pre-kindergarten education; criminal justice; and teacher training.

Among the options below, we believe that **asthma management shows the most immediate promise for a PFS project**. We propose to use Phase II to do the full economic analysis on this option, and to build out the blueprint to take this initiative from concept to contract. We believe that projects in **recidivism and home visiting are promising demonstration projects**—to allow providers to ramp-up in Memphis. We propose to use Phase II to build scenarios for these two options, to build capacity for future PFS initiatives. In our time together on Dec 10-11<sup>th</sup>, we suggest discussed alternate paths forward for the other options. For these other options, many are quite promising, but require further investigation, demonstration, or capacity-building of providers to approach readiness for a PFS project.

Within these issue areas, PFS initiative ‘options’ are assessed against the criteria required for a successful PFS project, evidence of: 1) concentrated and definable population in need, 2) evidence based interventions addressing the vulnerable population, 3) service providers capable of implementing evidence based interventions 4) potential ‘payors’ for a PFS outcomes payment, and 5) positive social Return on Investment (ROI) with concentrated savings within a lead agency (likely the ‘payor’ of outcomes). Based on this analysis, Social Finance recommends the following approach for these prospective options.

### **Promising PFS Initiative**

- **Blight – Asthma Management and Care Coordination:** Asthma management is a high potential PFS opportunity due to the relatively strong provider, availability of data, and clear link to payor economics—work remains to develop a detailed economic model, explore payor interest, and translate existing evidence from other programs. Shelby County has the second highest rate of asthma-related hospitalizations in the State of Tennessee. Le Bonheur Children’s Hospital in Memphis alone receives nearly 3,500 asthma-related visits each year. To address the issue, the hospital has developed a strong intervention and service provider infrastructure for asthma management—Changing High-Risk Asthma in Memphis through Partnership (CHAMP). Early program results from pre-post program participation data indicate that asthma management and reduced healthcare utilization generates a positive ROI for the public sector, although this return is likely realized across agencies. While the majority of savings likely accrue to the State of Tennessee, Asthma Management and Care Coordination is a high-potential PFS opportunity with the right payors involved.

### **Promising Demonstration Project to Build Provider Capacity**

- **Early Childhood – Home Visiting and Prenatal Care:** Home visiting is a promising demonstration project to help evidence based practices build their capacity to absorb PFS financing in the future, given the deep evidence in the field, the potential for significant social ROI, and the lack of providers in Memphis ready to scale quickly. There are approximately 8,000 children born in Shelby County to mothers below the poverty line each year. These

mothers tend to be at a heightened risk for negative birth outcomes. Interventions in this space have been widely evaluated for impact, but it is not clear that best-in-class programs are ready to scale at a pace aligned with a PFS contract. However, Nurse Family Partnership may be interested in slow scale –up in Memphis, and any philanthropic or government support might incorporate PFS outcomes metrics to position the organization for a PFS contract in the future.

- **Criminal Justice – Recidivism: Workforce and Life Skills Development:** Like home visiting programs, an initiative to reduce recidivism has a strong evidence base nationally, yields savings and benefits to the state as a potential payor, but lacks a strong local provider, and would likely require City/County commitment of transitional jobs. Approximately 8,000 citizens released from Shelby County facilities in 2013. The costs of recidivism (cashable, and intangible savings) to the State are significant (potentially 200% of costs), but an evidence based provider, ready to scale, is not presently working in Shelby County. Should a national evidence based provider be interested in coming to Shelby County, a criminal justice focused PFS project is a strong potential PFS opportunity.

### **Promising Philanthropic Project to Build Evidence Base**

The following proposed initiatives are promising projects that might use philanthropic funding to build an evidence base of impact on a specific intervention, or to determine the ROI in Memphis.

- **Blight – Asset Recovery and the Mitigation of Negative Spillovers:** Approximately 22% of Memphis’s residential properties violate the blight code, and research suggests that spillover effects of blighted homes both negatively impact home values, and are linked to higher violent crime rates. Because no evidence based interventions address the challenges of blight, Memphis and Shelby County should focus on a three-pronged alternative to PFS: first, Shelby County should attempt to gain authority to open its own Land Bank to deal with vacant and foreclosed properties. Second, philanthropic funding should support CDCs in transitional neighborhoods where blighted, delinquent, or foreclosed property is likely to have negative consequences for community development. Third, a data tool for property management such as OpportunitySpace should be incorporated into the city’s community development approach.
- **Early Childhood – Expanding the Continuum of Care:** Some families do not qualify for evidence based home visiting programs, and yet would benefit from a supports focused on healthy childhoods, strong families, and school readiness. Specifically, mothers who have already given birth, or families with children over the age of two would benefit from additional support. However, the programs focused on this population, have inconsistent reports of efficacy, suggesting that they are less suitable for a PFS contract. A philanthropic investment to expand and evaluate the most promising of these programs—including potentially: Parents as Teachers (PAT) or HIPPO—is compelling opportunity to better serve vulnerable populations in Memphis.
- **Early Childhood – Expanding Access to Pre-Kindergarten Programs:** Approximately 3,000 of the 8,000 Head Start-eligible four-year-olds in Shelby County receive no pre-kindergarten education. Shelby County is currently pursuing a joint application for federal funding with Vanderbilt University, and a PFS initiative should be postponed until the results of this application released, and the funding need is more clearly defined.
- **Teacher Preparation – Recruitment, Preparation, and Retention:** Teacher preparation—especially if it can improve a future teacher’s performance from average to excellent—has a strong ROI, by reducing the costs associated with hiring and training teachers, and the benefits

of improved student performance (if linked to better teacher performance). However, evidence based curriculum and service providers are not widely available. A philanthropically funded demonstration project would support evaluation of interventions currently in Memphis (e.g. Relay / Graduate School of Education at the University of Memphis), including tracking of teacher preparation, retention, and student achievement.



## Blight

### Asthma Management and Care Coordination

Teaching techniques to manage asthma and prevent asthma-related hospital visits is a **potentially investment ready opportunity**. Growing evidence on the correlation between high costs of asthma related to hospitalization, coupled with a demonstration project in process in Fresno, California building the evidence base of the impact of specific interventions, and the experience of the local CHAMP initiative at Le Bonheur Children's Hospital suggest that the context is ripe for an pilot PFS project.

- **Need:**
  - Children in Memphis, particularly black and female children in poverty, are at an elevated risk for asthma-related hospitalization. Asthma prevalence tends to be higher for children than for adults in Tennessee. Children ages 1-4 had the highest inpatient hospitalization rates for asthma over 2001-2010. The 2006-2010 ED visit rate for black children in Tennessee was more than four times the rate for white children (2,481/100,000 vs. 580/100,000).
    - Shelby County had the second highest age-adjusted rate of asthma-related hospitalizations for any county in Tennessee.
    - Le Bonheur Children's Hospital has approximately 3,500 asthma-related visits each year.<sup>1</sup>
- **Intervention:**
  - **Home visitation and care coordination:** While program specifics vary, interventions focus on: working with hospitals and neighborhood organizations to identify children with asthma; educating families and children diagnosed with asthma; reducing environmental triggers; and follow-up home visits from specialists to ensure that children's asthma is managed. Many state departments of health implement asthma management strategies that use these activities.
    - **Evidence:** There have been many evaluations of randomized trials for asthma management strategies with most showing significant reductions in asthma-related hospitalizations or acute care visits.<sup>2</sup> Using detailed data from the state's TennCare database, CHAMP has produced internal before-and-after estimates of its effects on hospital visits and medical expenses for children in its care.
- **Provider:**
  - **Changing High-Risk Asthma in Memphis through Partnership (CHAMP) at Le Bonheur Children's Hospital**
    - **Overview:** The CHAMP initiative "aims to reduce deaths from pediatric asthma, reduce ED and urgent care visits, reduce avoidable hospitalizations and reduce asthma exacerbations or episodes" through education, care coordination among neighborhood and community partners using asthma action plans, and follow-up

<sup>1</sup> PRNewswire, "Le Bonheur Children's Hospital Fights Pediatric Asthma," November 26, 2012, <http://www.prnewswire.com/news-releases/le-bonheur-childrens-hospital-fights-pediatric-asthma-180889411.html>.

<sup>2</sup> See, e.g., Edith A. Parker et al., "Evaluation of Community Action Against Asthma: a community health worker intervention to improve children's asthma-related health by reducing household environmental triggers for asthma," *Health Education & Behavior* 35.3 (2008): 376-395.

home visits.<sup>3</sup> CHAMP recently received a \$2.9 million Health Care Innovation Award from the Centers for Medicare and Medicaid Services (CMS) to expand its reach.

- **Geography:** Within Shelby County, those children who receive treatment for an asthma-related diagnosis through Le Bonheur's Emergency Department and who are insured by TennCare.
  - **Scale:** As of the second quarter of 2014, CHAMP has served 270 children. Its goal is to enroll 465 children by year end, 825 in 2015, and 1,185 in 2016. Additionally, it has trained over 100 clinical and non-clinical personnel for the program.
  - **Concerns:** CHAMP has not demonstrated sustained efficacy with scale, nor long-term impact on healthcare utilization.
- **Payor:**
  - **TennCare / State of Tennessee's Medicaid program:** In 2010, Shelby County residents spent \$15 million on pediatric asthma-related hospitalizations. Statewide, TennCare bears about two-thirds of the costs of pediatric asthma-related hospitalization, which, applied locally, would indicate that TennCare spent about \$10 million on asthma-related hospitalizations.
- **Recommendation:** CHAMP is a potentially PFS ready project, should operations continue to grow to support scale, local ROI build on directional positive returns (estimated to be between .5 and 1.3—depending on outcomes included and target payor), and a payor be secured. The conversation between CHAMP and Social Finance scheduled for December 10<sup>th</sup> will help to build the roadmap for a pilot project.
- **Next steps:**
  - Strategize with CHAMP to determine if responding to the Green and Healthy Homes Initiative's (GHHI) Request for Proposals to assess the feasibility of implementing asthma-related PFS projects would be beneficial.
  - Assess the willingness for TennCare or the State of Tennessee to serve as a payor.
  - Analyze detailed cost figures for program delivery to refine estimates of CHAMP's ROI.
  - Collaborate with CHAMP researchers to achieve a thorough understanding of CHAMP's evidence base, as developing for Center for Medicare and Medicaid Services (CMS) expansion grant.

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<sup>3</sup> Ibid.

## Early Childhood

### Home Visiting and Prenatal Care

Home visiting programs, which together comprise a continuum of care for mothers and their children that starts with prenatal services and runs through kindergarten, appear to be positioned for a **demonstration project** or an **outcomes based philanthropic contract** to build PFS capacity in Memphis. Because current home visiting efforts are focused on a gradual increase in the number of families served in Memphis, a demonstration project would build capacity and infrastructure to support a faster scale-up via PFS in the future.

- **Need:**
  - Approximately 8,000 children were born in Shelby County below the poverty line in 2012, providing one estimate for the number of families that might benefit from home visitation services.<sup>4</sup> Negative birth outcomes such as preterm births and the percent of women not receiving prenatal care in Shelby County were 12.4% and 5.6%, respectively—above state and national averages, driven by especially high incidence rates among black women in the County.
- **Intervention:**
  - **Home visiting models:** Home visiting models involve dispatching qualified professionals and nurses to visit the homes of mothers. The focus and content of the interactions between the home visiting professional and mother depends on the age of the mother's child and her needs. Home visiting models differ in their emphases because many focus on separate stages of development.
  - **Programs targeting prenatal-2-year-olds:** Trials evaluating the Nurse Family Partnership (NFP) showed improvement in behavioral and emotional outcomes among those children whose mothers participated in NFP, and educational outcomes for mothers with limited psychological resources.
- **Provider:**
  - **Nurse-Family Partnership (NFP)**
    - **Overview:** NFP is an evidence-based home visiting service that meets with first-time Medicaid-eligible mothers before the 28<sup>th</sup> week of gestation through year 2 of the child's life. NFP focuses on reducing negative birth outcomes as well as educating mothers on healthy habits for herself and her child, including smoking cessation, lower negligence and abuse, and fewer behavioral problems.
    - **Evidence<sup>5,6,7,8</sup>:** NFP has been evaluated through several well-conducted randomized experiments with long-term follow-up for mothers and their children in different populations and settings. Research has shown that NFP reduces abuse and neglect,

<sup>4</sup> Census Bureau – American Community Survey 2012.

<sup>5</sup> David Olds et al., "Improving the Delivery of Prenatal Care and Outcomes of Pregnancy: A Randomized Trial of Nurse Home Visitation," *Pediatrics* 77, no. 1 (1986): 16-28.

<sup>6</sup> There are several long-term follow-ups of the NFP-Elmira Trial, e.g., John Eckenrode et al., "Long-term effects of prenatal and infancy nurse home visitation on the life course of youths: 19-Year Follow-Up of a Randomized Trial." *Archives of Pediatrics and Adolescent Medicine* 164, no. 5 (2010): 424.

<sup>7</sup> Harriet Kitzman et al., "Effect of prenatal and infancy home visitation by nurses on pregnancy outcomes, childhood injuries, and repeated childbearing: a randomized controlled trial," *Jama* 278, no. 8 (1997): 644-652.

<sup>8</sup> Coalition for Evidence-Based Policy, "Social Programs That Work," <http://evidencebasedprograms.org/1366-2/nurse-family-partnership>.

including ingestions and injuries; arrests and convictions as adults; behavioral problems; and mothers' welfare receipt and labor force participation. Additionally, one trial found that NFP significantly improves language development, behavioral adaptation, and executive functioning among children born parents of low intelligence and/or mental health. Some of its largest effects occur among those most at-risk of negative birth outcomes—for instance, NFP produced a 79% reduction in preterm births among women who smoked in their Elmira, NY trial.

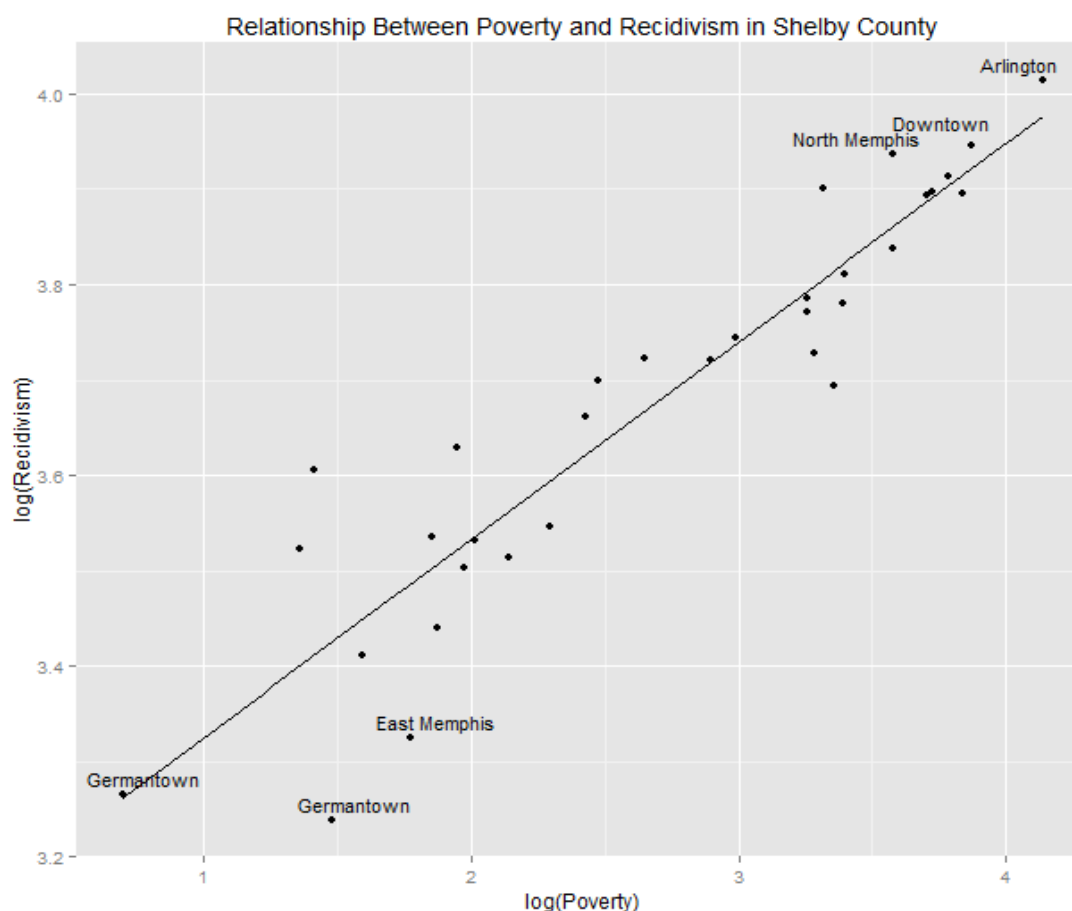
- **Geography:** Franchises in every state except Hawaii, Nebraska, Mississippi, West Virginia, Massachusetts, and Maine.
  - **Scale:** 30,000 first-time Medicaid-eligible mothers and their children are served nationwide through NFP.
  - **Concerns:** There have been some reports of underutilized capacity for NFP services in Memphis despite the worse-than-average birth outcomes and high poverty rates for the City as a whole, indicating that recruitment and referral strategy need improvement.
- **Payor:**
  - **TennCare / State of Tennessee's Medicaid program:** Enrolling in TennCare is a part of the home visiting process, and therefore avoided costs generate a positive ROI to the state from fewer hospitalizations from abuse and negligence, as well cost savings from negative effects of preterm births, including lifetime and neonatal intensive care unit (NICU) costs.
  - **City of Memphis:** Reduced grade retention and special education services produce savings that may accrue to the City.
  - **State of Tennessee** Departments of Labor and Human Services will realize benefits from lower welfare receipt and higher lifetime earnings as a result of program participation.
  - **Federal agencies:** Benefits from lower welfare receipt accrue to USDA Food and Nutrition Service (WIC), U.S. HHS (TANF), and other agencies; benefits also materialize from higher lifetime earnings.
- **Recommendation:** NFP could be scaled to treat more women and their children; however it is not yet clear if the speed with which they could scale matches the funding associated with a PFS contract. If NFP's growth plan in Memphis aims for a gradual scaling, a mix of TennCare, philanthropic, and federal Maternal, Infant, and Early Childhood Home Visiting (MIECHV) funding should support these more modest service targets, with a focus on evaluating PFS related outcomes to position the organization for a PFS contract in the future.
- **Next steps:**
  - Solidify an understanding of NFP's desire to scale through conversations with senior NFP staff.
  - Understand whether it would be possible to resolve any recruitment difficulties that would preclude providing NFP's services to more mothers and children.
  - Begin conversations with TennCare and the State of Tennessee to ascertain whether one or both could serve as payor.

## Criminal Justice

### Recidivism: Workforce and Life Skills Development

Job training for formerly incarcerated individuals is a **promising demonstration project** opportunity. Targeting young adult males in high-recidivism ZIP codes with strong, evidence-based service providers such as Center for Employment Opportunities (CEO) or the Doe Fund may provide substantial benefits and cost savings to Shelby County's Department of Corrections by reducing recidivism and thus incarceration costs.

- **Need:**
  - Approximately 8,000 citizens are released from Shelby County correctional facilities each year. There is a particular need to reduce recidivism in heavily impoverished ZIP codes within Shelby County as there is a strong association between poverty and recidivism.<sup>9</sup>
    - As poverty doubles, there is an associated 21 percent increase in recidivism rates at the ZIP code level, which is displayed in the graph below.



- Conversations with Shelby County officials with knowledge of the justice system suggest that young adult males from 18-24 years of age are a high potential target population for services in the area.

<sup>9</sup> Data are taken from Memphis Leadership Foundation's study on recidivism.

- Both existing PFS experience (e.g. the New York State Social Impact Bond), and evidence from an MDRC RCT conducted between 2004 – 2006 indicate that workforce training for high risk male populations aged 18 – 24 have the highest rate of effect.
- **Intervention:**
  - **Workforce training and development:** Programs include job and life skills training to increase the chances of securing and maintaining employment. Curricula vary widely by service provider, but typically include a focus on entry job readiness modules: relationship management, acceptable public appearance, and technical skills training.
    - **Evidence:** The U.S. Department of Health and Human Services (HHS) commissioned the Hard-to-Employ (HtE) evaluation, a randomized study of strategies that sought to increase employment for groups who faced sizable barriers to securing and maintaining employment. MDRC, one of the evaluators of the HtE project, found in a three-year randomized trial that the Center for Employment Opportunities, a service provider that focuses on employing formerly incarcerated individuals, reduced the probability that someone would ever be convicted of a crime or ever incarcerated in jail and increased transitional job placements in the first year of its programming relative to the comparison group.<sup>10</sup>
  - **Counseling:** Treatment for mental illness and substance abuse.
    - **Evidence:** Researchers in criminology mention the need principle, the notion that those formerly incarcerated individuals must be treated according to their most salient ailments, as a bedrock of successful evidence-based practice. “The more services or referrals targeting criminogenic needs, the stronger the effects,” notes one review of evidence-based practices to reduce recidivism.<sup>11</sup> Other researchers have found that treatment programs such as in-prison therapeutic community and community-based transitional therapeutic communities reduced post-release recidivism rates.<sup>12</sup>
  - **Moral Reconciliation Therapy:** Improving people’s moral and ethical decision-making through counseling.
    - **Evidence:** A meta-analysis of 33 studies and 30,259 offenders who were studied in prior moral reconciliation therapy (MRT) trials finds that there is “small but important effect on recidivism,” with MRT being more effective with adult than juvenile offenders.<sup>13</sup>
- **Providers:**
  - **Workforce Investment Network (WIN)**
    - **Overview:** WIN is a community resource that connects job seekers with employers and houses various workforce development services, including adult basic education, veteran services, employment services, vocational rehabilitation, and

<sup>10</sup> Dan Bloom et al., “Transitional jobs for ex-prisoners: Implementation, two-year impacts, and costs of the Center for Employment Opportunities (CEO) Prisoner Reentry Program,” New York: MDRC, August (2009).

<sup>11</sup> Edward J. Latessa and Christopher Lowenkamp, “What works in reducing recidivism,” *U. St. Thomas LJ* 3 (2005): 521.

<sup>12</sup> Matthew L. Hiller, Kevin Knight, and D. Dwayne Simpson, “Prison-based substance abuse treatment, residential aftercare and recidivism,” *Addiction* 94, no. 6 (1999): 833.

<sup>13</sup> L. Myles Ferguson and J. Stephen Wormith, “A meta-analysis of Moral Reconciliation Therapy,” *International Journal of Offender Therapy and Comparative Criminology* (2012): 1.

support services.<sup>14</sup> WIN was founded in 1998 after the signing of the Workforce Investment Act of 1998. New initiatives are focused on connecting employers with community college and certification programs to better align: citizens, educational organizations, and employers.

- **Geography:** Memphis, Shelby County, and Fayette County.
  - **Scale:** Since its inception in 1998, WIN has served approximately 28,000 individuals, only a subset of whom are formerly incarcerated individuals.
  - **Concerns:** There has not been a formal evaluation or any strong data connected with employment and recidivism, thus throwing into question WIN's effectiveness in dealing with returning citizens. Moreover, in contrast to CEO, WIN does not exclusively serve returning citizens who have disparate needs from the general pool of job seekers.
- **Center for Employment Opportunities (CEO)**
  - **Overview:** CEO is an evidence-based provider of job training, transitional employment, full-time job placement, and retention services to citizens returning to the community from prison. CEO's services focus on the most at-risk citizens, with a particular concentration on adults ages 18-25. CEO is currently involved in a four-year PFS deal to provide employment and life skills training to returning citizens within certain jails in New York State.
  - **Geography:** New York State; Oakland, CA; San Bernardino, CA; San Diego, CA; Oklahoma City, OK; Tulsa, OK.
  - **Scale:** CEO had 3,409 total enrollments in its fiscal year 2013, with 1,735 total placements over the period.<sup>15</sup> It aims to serve 4,000 formerly incarcerated individuals in fiscal year 2014.
  - **Concerns:** CEO may only be willing to expand programming in Memphis if a payor and a pipeline to transitional jobs are secured.
- **Memphis Leadership Foundation – Economic Opportunities**
  - **Overview:** Economic Opportunities is a faith-based nonprofit service provider that works with individuals who have returned to the community from jail, including many who have tried other job training programs, to provide moral instruction, job training leading to the completion of the National Career Readiness Certificate Credential program, and full-time employment placement.<sup>16</sup>
  - **Geography:** Memphis.
  - **Scale:** Serving about 100 formerly incarcerated individuals per year.
  - **Concerns:** Memphis Leadership Foundation does not have a history of scale, and lacks an evidence base and data systems.
- **Advance Memphis**
  - **Overview:** Advance Memphis provides a suite of services, including Jobs for Life, a six-week, soft skills job training program; anger management; GED preparation; legal aid; financial literacy and money management education; employment support and staffing; and LAUNCH, a 10-week program for those aspiring to open their own businesses.<sup>17</sup> Advance Memphis focuses on the 38126 ZIP code and maintains a strong faith-based emphasis.

<sup>14</sup> <http://www.workforceinvestmentnetwork.com/about-us/introduction>.

<sup>15</sup> Center for Employment Opportunities Annual Report 2013, 20, <http://ceoworks.org/wp-content/uploads/Annual-Report-2013-web-ready-final-1.pdf>.

<sup>16</sup> Ernie Hilliard, interview by Casey Littlefield and Alex Jutca, October 14, 2014.

<sup>17</sup> Advance Memphis Programs, <http://advancememphis.org/programs/#working>.



- **Geography:** Memphis ZIP code 38126 (Cleaborn and Foote neighborhoods).
  - **Scale:** Population of the 38126 ZIP code is about 7,334 as of 2010.<sup>18</sup>
  - **Concerns:** Advance Memphis does not have a strong evidence base, and may not have the capacity to serve additional zip codes.
- **HopeWorks**
  - **Overview:** HopeWorks, a faith-based nonprofit organization founded in Memphis in 1988, serves the chronically unemployed through job and life skills training and job placement services.
  - **Geography:** Memphis.
  - **Scale:** In 2013, HopeWorks placed 103 people, the organization's record for placements.<sup>19</sup>
  - **Concerns:** HopeWorks has no history of scale, nor a strong evidence base.
- **Payor:**
  - **State of Tennessee Department of Corrections:** According to County officials, the average bed-day cost in Shelby County Department of Corrections facilities is approximately \$70, providing a clear rationale for the State to serve as a payor.<sup>20</sup>
  - **State of Tennessee Department of Labor:** Benefits and cost savings accrue to the State from fewer payouts from unemployment benefits, increased tax revenues, and second-order effects from increased economic activity.
- **Recommendation:** Workforce development opportunities in criminal justice represent a strong opportunity for a PFS initiative, should a service provider indicate interest and capacity to scale.
- **Next steps:**
  - Investigate the willingness for the State of Tennessee's Department of Labor and/or Corrections to serve as a payor.
  - Continue conversations with national service providers such as CEO and Shelby County officials to examine the possibility of importing their services to Shelby County.
  - Refine the estimates of the financial costs and benefits of operating within Shelby County.

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<sup>18</sup> <http://www.unitedstateszipcodes.org/38126/>.

<sup>19</sup> Don Wade, "From Despair to Belief," *Memphis Daily News*, July 19, 2014, <http://www.memphisdailynews.com/news/2014/jul/19/from-despair-to-belief/>.

<sup>20</sup> Phyllis Fickling, interview by Jeff Shumway and Alex Jutca, October 7, 2014.



## Blight

### Asset Recovery and Mitigation of Negative Spillovers

Blight mitigation—the acquisition, maintenance, rehabilitation or deconstruction of blighted properties—might consist of several interventions, including: a capitalized fund for Memphis Community Development Corporations (CDCs) to expand their portfolios of properties that fail to be sold at tax sales; a city land bank with the authority to rehabilitate, demolish, lease, or sell properties that fail to be sold in tax sales or are in foreclosure; a comprehensive, transparent web-based property management platform; or property maintenance (e.g. grass cutting or early intervention to address minor structural challenges before a property falls into disrepair). Given the nascent state of these intervention strategies and their limited budgetary impact, these options are best suited for a **philanthropic investment** as a proof of concept and improve the evidence base of the economic benefits stemming from blight mitigation.

- **Need:**
  - Twenty-two percent of residential properties in Memphis violate the blight code. These properties are further classified by ‘type’ of violation: environmental violations (e.g., overgrown weeds) and structural deficiencies (e.g., severely dilapidated properties).
    - Blight mitigation is likely to be most effective in “transitioning neighborhoods”, represented as Zone 2 in the publication *Neighborhood-by-Neighbor*<sup>21</sup>, including Frayser and Whitehaven. Transitioning neighborhoods may be more sensitive to blight spillover effects. A Federal Reserve Bank of Cleveland research paper that shows that vacant, delinquent, foreclosed homes tend to have the greatest negative price effects in medium-poverty neighborhoods supports this view.<sup>22</sup>
- **Intervention:**
  - **Well-capitalized fund for Memphis CDCs:** Expand the pool of capital for CDCs in Memphis to bid on properties not sold at tax sales.
    - **Evidence:** Evidence from the Federal Reserve Bank of Cleveland suggests that vacant and foreclosed properties depress nearby properties’ values by 1-5%, indicating that quickly rehabilitating and reoccupying these homes would provide social value to the City and County.<sup>23</sup> In addition, capital is the constraining factor of rehabilitation efforts in Memphis, according to community development and real estate experts.<sup>24</sup> Moreover, CDCs have shown a sustainable business model based on revenue from sale and rental of properties.
  - **Land bank for the City of Memphis:** Grant the City or County authority to remediate, sell, or lease properties that are tax-delinquent or that are in foreclosure and are currently real-estate-owned (REO).
    - **Evidence:** Evidence from Cuyahoga County’s (OH) experience with its land bank in the aftermath of the Great Recession suggests that land banks can be effective redevelopment tools for cities with steady or declining populations. For example, Cuyahoga County’s land bank was able to acquire a portfolio of Fannie Mae-owned

<sup>21</sup> T.K. Buchanan et al., “Neighborhood-by-Neighbor: A Citywide Problem Property Audit of Memphis, TN,” (Center for Community Building and Neighborhood Action at the University of Memphis: April 15, 2010), 5.

<sup>22</sup> Stephan Whitaker and Thomas J. Fitzpatrick IV, “The Impact of Vacant, Tax-Delinquent and Foreclosed Property on Sales Prices of Neighboring Homes,” Federal Reserve Bank of Cleveland *Working Paper* 11023 (2011).

<sup>23</sup> Ibid.

<sup>24</sup> Steve Barlow, Interview by Jeff Shumway, October 7, 2014.

mortgages worth less than \$25,000 for \$1 each.<sup>25</sup> The land bank can then decide to demolish the property if dilapidated or transfer the property to a CDC or other qualified buyer.

- **Web-based data management tool for property management:** Promote transparency of city-owned properties as well as blighted properties to City and County officials and external stakeholders
  - **Evidence:** No evidence base. However, real-time property data may be an effective tool for resolving problem properties: prompt assessment of blighted properties can prevent blighted or REO properties from decaying, and catalyze positive developments in transitional neighborhoods. Data management is unlikely to provide benefits that can be easily monetized, but presents an opportunity for a philanthropic investment.
- **Providers:**
  - **Memphis CDCs – The Community Development Council of Greater Memphis**
    - **Overview:** CDCs are nonprofit, community-based organizations that offer a variety of services, including residential and commercial real estate financing and development with a focus on affordable housing. They receive funding through fees-for-service as well as grants such as Community Development Block Grants (CDBGs) primarily to finance efforts relating to affordable housing and community strengthening. In Memphis, the coalition of CDCs partition their services by neighborhood, encompassing many lower-income ZIP codes in need of blight remediation as well as development of quality housing options for less affluent customers. The Community Development Council of Greater Memphis is the umbrella organization for CDCs in the city and could help unify the stakeholders in the fund. In addition, the Memphis Community Development Partnership, a funding and technical assistance intermediary for CDCs in area, could manage the fund.
    - **Geography:** Community Development Corporations in Memphis are located mainly in lower-income neighborhoods in the city; partnering with Whitehaven CDC or Frayser CDC might pose an opportunity.
    - **Scale:** The proven ability of the Memphis Community Development Partnership to manage large sums of capital for distribution to CDCs suggests that it is an ideal intermediary. Memphis CDCs provide broad geographic coverage, with approximately 30 in operation.<sup>26</sup>
    - **Concerns:** Memphis CDCs must demonstrate an ability to collaborate, manage additional capital, allocate capital systematically, and coordinate a central data system that would allow prompt allocation of capital to the highest need. Moreover, CDCs might not be able to be much assistance in severely depressed neighborhoods, limiting their applicability to a subset of the housing problems that face Memphis.
  - **OpportunitySpace**
    - **Overview:** OpportunitySpace is a start-up nonprofit organization dedicated to organizing and providing transparent access to cities' property data through a web-based interface. Its platform allows external stakeholders as well as City and County officials to understand the state of various properties within their city.

<sup>25</sup> Thomas James Fitzpatrick, "How Modern Land Banking Can Be Used to Solve REO Acquisition Problems," Social Science Research working paper series, May 3, 2010.

<sup>26</sup> Ellen Eubank, "New Yardstick Measures Memphis CDCs," *Bridges*, (Federal Reserve Bank of St. Louis: Summer 2004), <https://www.stlouisfed.org/publications/br/articles/?id=631>.

OpportunitySpace has worked in several major cities on blight-related issues, including Providence, Louisville, and Philadelphia. More recently, it has begun helping Kansas City, KS with the city's incipient land bank.

- **Geography:** Rhode Island; Louisville, KY; Kansas City, KS; Philadelphia, PA
  - **Scale:** OpportunitySpace has indicated interest in expanding to new cities facing disparate issues around property management
  - **Concerns:** OpportunitySpace is not yet working with a Champion in Memphis to support operations and data needs.
- **Geography:** (see *Need*.)
- **Payors:**
  - **City of Memphis:** Property Taxes account for over 40% of the City of Memphis's revenues. Moreover, the City spends approximately \$9 million through its Department of Public Works on Neighborhood Improvement.<sup>27</sup> Therefore, the City has a significant incentive to reduce blight and serve as a payor. However, the City's budgetary constraints might preclude it from immediate participation in a typical PFS financing. However, because there is a potential revenue stream from the sale or lease of properties, there may be a more traditional financing that could increase Memphis CDCs ability to
  - **Philanthropies:** Hyde; Poplar; Pyramid Peak – any or all of these organizations could serve as a payor in lieu of the City due to its ongoing fiscal problems.
- **Recommendation:** There are three separate recommendations within this category for the County and City. First, as a matter of policy, Shelby County should attempt to gain authority to open its own Land Bank to deal with vacant and foreclosed properties. Second, use philanthropic funding to support CDCs in transitional neighborhoods where blighted, delinquent, or foreclosed property is likely to have negative consequences for community development. Third, incorporate a data analytics tool for property management such as OpportunitySpace.
- **Next steps:** Develop the mechanics of a blight fund, and the purview of operations
  - Identify specific properties or areas within ZIP codes that could be worthy philanthropic investments via CDCs or a stabilization fund.
  - Leverage the University of Chicago's Data Science for the Social Good analytical tool to identify those properties where targeted action could have the highest payoff.
  - Introduce relevant parties within Memphis and Shelby County to OpportunitySpace to examine whether relationship would benefit the City and County.

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<sup>27</sup> City of Memphis Fiscal Year 2015 Adopted Operating Budget,  
<http://www.memphistn.gov/Government/FinanceDivision/FY2015AdoptedOperatingBudget.aspx>.

## Early Childhood

### Expanding the Continuum of Care

Early childhood education can have important long-run effects on children's life outcomes. Approximately 7,000 children are born to low-income mothers in Memphis, approximately 60% of which are not first time mothers (limiting program eligibility for home visiting programs). The Early Success Coalition is working to promote collaboration among early childhood programs (including programming for first time mothers, families in poverty, early education, etc.). We consider expanding interventions under this umbrella to be a **promising demonstration project**. A demonstration project could extend services that connect families to resources after they are first engaged in home visiting programs, identify outcomes likely to generate cashable savings and intangible social benefits, and build the evidence base that these programs improve children's lives on these metrics.

- **Need:**
  - Based on estimates of low-income births in Memphis, we estimate that roughly 28,000 children between the ages of 2 and 5 are in need of social supports in Memphis. NFP, HFA, PAT, and the Early Success Coalition are working to support these children and families. Conversations with Le Bonheur staff responsible for home visiting programs indicate that each program serves in the hundreds of families, suggesting substantial room for expanding services.
- **Intervention:**
  - **Home visiting models that focus on children 2-5 years old:** Home visiting models involve dispatching paraprofessionals to visit the homes of mothers. Where models focused on first-time mothers with children under the age of 2 focus on prenatal health, healthy births, and reduced need for medical intervention, programs serving families with older children, or families that already have on child, focus on instilling healthy habits in mothers (e.g., dealing constructively with stress related to childrearing), and preparing children for school (e.g., improving literacy).
    - **Evidence:** Evidence on home visiting services for children ages 2-5 is mixed in terms of size of effects as well as the quality of the evidence base, which is a significant point of differentiation for NFP.
- **Providers:**
  - **Parents as Teachers (PAT)**
    - **Overview:** PAT is an evidence-based, early childhood home visiting model that seeks to improve health and educational readiness for children prior to entering kindergarten. Its model includes monthly one-on-one home visits by parent educators with some college education, monthly group meetings, developmental and health screenings, and a resource network for families to improve parents' ability to educate their children. PAT serves 250,000 children nationwide by partnering with school districts, hospitals, non-profit organizations, and early childhood service delivery organizations such as Early Head Start, Head Start, and Healthy Families America.
    - **Evidence:** Randomized experiments examining the PAT program found mixed effects on parents' attitudes toward and knowledge about childrearing and no

statistically significant gains on children's health or child development.<sup>28</sup> The authors conclude that the overall effects of PAT on cognitive, social, and physical development "were not large."<sup>29</sup>

- **Geography:** PAT has offices in 36 states (with affiliates in 50 states and the District of Columbia) and 6 countries.
  - **Scale:** PAT reaches 250,000 children nationwide through its own efforts along with partner outreach.
  - **Concerns:** One concern with PAT is that its benefit-to-cost ratio is not particularly robust. One meta-analysis calculated a 57% probability of producing benefits greater than program costs,<sup>30</sup> and its benefits accrue to the individual through higher wages. These indirect benefits indicate that funding for the program might need to come from philanthropies or public agencies that are willing to pay for social value. Finally, as with the other home visiting programs, recruitment and enrollment of mothers who could use PAT's services remains a challenge in Memphis.
- **Healthy Families America (HFA)<sup>31</sup>**
  - **Overview:** HFA's home visiting services aim to reduce abuse and negligence, increase maternal health, improve the mother-child relationship, and prepare children well for school. HFA's services begin with prenatal care and last through ages 3-5. In contrast to NFP, HFA accepts low-income mothers who have already had a child and features a home visiting model led by paraprofessionals.
  - **Evidence:** HFA has been evaluated in several randomized trials. One trial found that HFA had no effects on child health, but had some positive effects on child development and behavior.<sup>32</sup> A second trial found that HFA had favorable effects on children's participation in gifted programs and reduced the percentage of students receiving special education, but no effects on children's health.<sup>33</sup> A third study found that HFA had weak or no effects on a variety of measured outcomes; the authors concluded that "few differences were observed between the intervention and control."<sup>34</sup> Overall, the Washington State Institute for Public Policy estimates that the benefit-to-cost ratio of HFA is about 0.6.<sup>35</sup>
  - **Geography:** HFA has offices in 34 states and the District of Columbia
  - **Scale:** A 2003 survey indicated that there were 47,500 families enrolled in HFA.
  - **Concerns:** The largest concern for HFA centers on its inability to pass a cost-benefit test even when benefits that accrue solely to the participants themselves (in contrast to public sector benefits). Additionally, as with the other home visiting

<sup>28</sup> Mary M. Wagner and Serena L. Clayton, "The Parents as Teachers Program: Results from Two Demonstrations," *The Future of Children* (1999): 91.

<sup>29</sup> Ibid., 110.

<sup>30</sup> Washington State Institute for Public Policy Report, "Parents as Teachers," April 2012.

<sup>31</sup> <http://www.healthyfamiliesamerica.org/home/index.shtml>.

<sup>32</sup> Debra Caldera et al., "Impact of a Statewide Home Visiting Program on Parenting and on Child Health and Development," *Child Abuse & Neglect* 31, no. 8 (2007): 829.

<sup>33</sup> Kimberly DuMont et al., "A randomized trial of Healthy Families New York (HFNY): Does home visiting prevent child maltreatment." *Washington, DC: National Institute*. <https://www.ncjrs.gov/pdffiles1/nij/grants/232945.pdf> (2010).

<sup>34</sup> John Landsverk et al., Healthy Families San Diego Clinical Trial: Technical Report, Child and Adolescent Services Research Center, San Diego Children's Hospital and Health Center, 2002.

<sup>35</sup> Washington State Institute for Public Policy Report, "Healthy Families America," April 2012.

programs, there are concerns around recruitment and enrollment of mothers who could use HFA's services.

- **Home Instruction Program for Preschool Youngsters (HIPPY)<sup>36</sup>**
  - **Overview:** HIPPY is a home visiting program that works to improve parents' ability to prepare children (ages 4 and 5) for school. HIPPY offers weekly, hour-long home visits for 30 weeks per year with an additional six group meetings.
  - **Evidence<sup>37</sup>:** A two-site, two-cohort randomized trial found that HIPPY had mixed effects on children's performance. While the first cohort in each site showed some positive academic and behavioral gains such as higher scores on standardized reading and math scores of 15-20%, the second cohorts displayed no significant improvement. The authors conclude that "conclusions regarding HIPPY's effectiveness must be tempered." However, a RAND Corporation study found that, when the results are pooled, HIPPY produced greater benefits than costs.<sup>38</sup>
  - **Geography:** HIPPY has offices in 134 sites in 24 states and the District of Columbia
  - **Scale:** 15,000 children and their families.
  - **Concerns:** First, because HIPPY is not currently operating in Memphis, it is unclear if they would be willing or able to open new operations in the area. Second, HIPPY's inconsistent evaluation poses a challenge to a PFS initiative.
- **Payor:**
  - **City:** Although the State of Tennessee funds pre-kindergarten education in the City and the County is responsible for the school system's operations (with the exception of the Achievement School District), the City has a significant stake in the future welfare of its children. Cost savings and benefits may accrue to the City by reducing funding pressures for education that come with lower grade retention and lower utilization of special education services. Moreover, lower likelihood of teen pregnancy and crime, and better labor market outcomes, improve city tax revenues and reduce criminal justice costs.
  - **Philanthropy:** Hyde, Poplar, and Pyramid Peak, all of whom can take a long-run approach to capturing social and economic value to enhanced pre-kindergarten services, might be well-suited partial payor for a PFS investment opportunity.
- **Recommendation:** Since the quality of interventions is heterogeneous, philanthropies and the State should focus on funding those whose benefits are likely to be greater than their costs (e.g., PAT, HIPPY). Given that 4-5-year-olds do not have the same level of programming and that many of this demographic go without pre-kindergarten education, HIPPY should be strongly considered for an expansion to Memphis through State or philanthropic funding.
- **Next steps:**
  - Continue to work with the Early Success Coalition to size the need and associated costs for services in Memphis.
  - Identify whether and under what conditions HIPPY could expand to Memphis.
  - Continue to work with Early Success Coalition to size the need for services in Memphis; identify program that can best fit with these articulated needs.

<sup>36</sup> [http://www.hippyusa.org/about\\_us.php](http://www.hippyusa.org/about_us.php).

<sup>37</sup> Amy J.L. Baker, Chaya S. Piotrowski, and Jeanne Brooks-Gunn, "The Home Instruction Program for Preschool Youngsters (HIPPY)," *The Future of Children* (1999): 124.

<sup>38</sup> Linda A. Karoly, M. Rebecca Kilburn, and Jill S. Cannon, *Early Childhood Interventions: Proven Results, Future Promise*, Vol. 341, RAND Corporation, 2006.



## Early Childhood

### Expanding Access to Pre-Kindergarten Programs

Early childhood education can have important long-run effects on children's life outcomes. However, today, nearly 3,000 Head Start-eligible 4-year-old children receive no pre-kindergarten programming. Pre-kindergarten education along with home visiting services targeted toward children preparing for school, can be an important investment in the welfare and academic achievement of Shelby County youth. We consider this option to be a **promising demonstration project**, with the objective of sustaining funding for pre-kindergarten after the federal education grant for pre-kindergarten expansion expires. Moreover, given that philanthropies have invested in existing pre-kindergarten PFS transactions, there is an opportunity to evaluate these models to quantify the social benefits and cost reductions and replicate these most impactful programs to create a network of high-quality programs.

- **Need:**
  - The City and County do not provide pre-kindergarten services to all eligible four-year-olds. Currently, approximately 3,000 of the 8,000 Head Start-eligible four-year-olds in Shelby County are not enrolled in Head Start due to supply constraints.<sup>39</sup> Moreover, Shelby County education officials claim that kindergarten readiness is around 30%, suggesting a need for better kindergarten preparation. According to DeAnna McClendon, the Director of Early Childhood Programs for Shelby County Schools, kindergarten readiness is nearly twice as high for those students who attend pre-kindergarten.<sup>40</sup> Assuming the average cost per pre-kindergarten served is \$9,000, expanding service to 3,000 more four-year-olds will cost approximately \$27 million. (Note: this figure was validated by representatives of the Shelby County Administrative Office.)
- **Intervention:**
  - Expanding quality pre-kindergarten access to the underserved four-year-olds of Shelby County and improve kindergarten readiness measures
    - **Evidence:** Evidence on pre-kindergarten and Head Start effectiveness is mixed and generally shows modest gains on academic performance, which then occasionally fade out as children progress through school. As Nobel Laureate James Heckman has noted, when it comes to early childhood education, "quality really matters."<sup>41</sup>
    - **Tennessee Voluntary Pre-Kindergarten:** In 2009, Vanderbilt University's Peabody Research Institute evaluated Tennessee's Voluntary Pre-kindergarten program (TN-VPK), an optional program that serves the neediest four-year-olds in the State. While the evaluators found that TN-VPK increased academic test scores in pre-kindergarten, in general, there were no statistically significant differences between TN-VPK students and students who did not participate in the pre-

<sup>39</sup> Tajuana Cheshier and Oliver Morrison, "Shelby County Schools wants to bring accountability, kindergarten-readiness to city's Head Start program," *Chalkbeat*, July 8, 2014, <http://tn.chalkbeat.org/2014/07/08/shelby-county-schools-wants-to-bring-accountability-kindergarten-readiness-to-citys-head-start-program/#.VDR1uvldUkM>.

<sup>40</sup> DeAnna McClendon, interview by Casey Littlefield and Alex Jutca, October 27, 2014.

<sup>41</sup> Dylan Matthews, "James Heckman: In early childhood education, 'Quality really matters,'" *The Washington Post*, February 14, 2013, <http://www.washingtonpost.com/blogs/wonkblog/wp/2013/02/14/james-heckman-in-early-childhood-education-quality-really-matters/>.

kindergarten class at the end of kindergarten and first grade.<sup>42</sup> However, there were some non-cognitive effects for those enrolled in TN-VPK, such as retention rates and days of school attended.

- **National Head Start Evaluation:** The U.S. Department of Health and Human Services commissioned a large randomized study of the impact of Head Start for three- and four-year-olds which followed children through the first grade. Both three- and four-year-olds showed many academic benefits from participating in Head Start, but these benefits faded out by the end of first grade with the exception of the gains on the Peabody Picture and Vocabulary Tests for four-year-olds and a test of oral comprehension for three-year-olds.<sup>43</sup> Even with the fade-out of results, the study findings suggest that Head Start would produce greater benefits than costs.<sup>44</sup>
- **Perry Preschool:** One of the model programs for Head Start in the 1960s in Ypsilanti, MI, the Perry Preschool experiment showed large, long-run effects on children who received services, including better performance on achievement tests, higher high school GPA and graduation rates, lower likelihood of arrest, higher earnings, greater rates of employment, and lower likelihood of receiving public assistance.<sup>45</sup> Heckman estimates the annual return on the Perry program at about 6-10% per year.<sup>46</sup>
- **Providers:**
  - **Shelby County School District, Porter-Leath, and the Achievement School District (via Porter-Leath)**
    - **Overview:** Shelby County School District, Porter-Leath, and the Achievement School District provide the pre-kindergarten education in Memphis and Shelby County.
    - **Geography:** Memphis and Shelby County
    - **Scale:** 5,000 four-year-olds currently receiving early education services, with a remaining 3,000 four-year-olds eligible but not currently enrolled in pre-kindergarten/Head Start.
    - **Concerns:** It is still unknown whether Shelby County School District's application with Vanderbilt University for a Federal Department of Education grant for the provision of expanded pre-kindergarten-3<sup>rd</sup> grade access will be successful. If it is, our work would have to focus on sustaining expanded pre-kindergarten-3<sup>rd</sup> grade reforms after funding expires.
- **Payor:**
  - **City:** Although the State funds pre-kindergarten education, the County school district is responsible for the school system's operations (with the exception of the Achievement School District), and the City benefits from a healthier and more productive citizenry. Should Memphis be willing to pay for cost savings and benefits that accrue from lower

<sup>42</sup> Mark W. Lipsey et al., "Evaluation of the Tennessee Voluntary Prekindergarten Program: Kindergarten and First Grade Follow-Up Results from the Randomized Control Design," Vanderbilt Peabody College, August (2013), 11-15.

<sup>43</sup> U.S. Department of Health and Human Services, Administration for Children and Families (January 2010), Head Start Impact Study, Final Report, Washington, D.C., xvi-xvii.

<sup>44</sup> Jens Ludwig and Deborah A. Phillips, "The Benefits and Costs of Head Start," No. w12973. National Bureau of Economic Research, 2007.

<sup>45</sup> Janet Currie, "Early Childhood Education Programs," *Journal of Economic Perspectives* (2001): 218.

<sup>46</sup>Dylan Matthews.



grade retention, lower utilization of special education, lower likelihood of teen pregnancy and crime, and better labor market outcomes, the City or County (school district) are potential payors of outcomes.

- **Philanthropy:** Hyde, Poplar, and Pyramid Peak, all of whom can take a long-run approach to capturing social and economic value to enhanced pre-kindergarten services, might be the most well-suited payor for a PFS investment opportunity, if associated cashable savings are not large enough to support a County / District sponsored PFS project. Due to the large amount of funding likely needed for expanded services, however, philanthropies might be expected to cover only a portion of the costs.
- **Recommendation:** Continue to work with the Vanderbilt-Shelby County Schools federal grant application team; should the grant be awarded, PFS could fund the back-end of the project; should the grant not be awarded, PFS could potentially scale pre-kindergarten programs in Shelby County.
- **Next steps:**
  - Work with the Vanderbilt-Shelby County team to articulate outcomes that are positioned for PFS financing.
  - Receiving an update on the timeline of the federal government's decision on whether it will fund an expansion of pre-kindergarten classes in the County.

## Teacher Preparation

### Recruitment, Preparation, and Retention

For more than five years, teacher preparation and retention has been a critical component of education reform efforts in Memphis, including an effort supported by Gates Foundation's Teacher Effectiveness Initiative awarded in 2009 and the federal Race to the Top grant to make the City into "Teacher Town, USA." Teacher preparation offers a **promising demonstration project** to refine program offering and evidence base to scale the teacher training initiatives that are ongoing in the City if evidence suggests that they are effective.

- **Need:**
  - In Tennessee, 59 of the 83 Priority Schools—those schools in the bottom 5% of academic performance—are located in Shelby County, prompting a need for high quality teachers. National estimates put the costs of teacher turnover in urban school districts at approximately \$15,000-\$18,000. In a 2009 application to the Bill & Melinda Gates Foundation to secure a grant of \$90 million for a Teacher Effectiveness Initiative, Kriner Cash, former superintendent of schools, estimated that 20% of teachers left Memphis city schools after their first year, and that 40% of teachers in the system left within three years.<sup>47</sup> Programs have typically failed because of challenges to identify strong candidates, and retain them in challenging under resourced systems.
- **Intervention:**
  - **Subsidies, training, and job placement:** Many teacher recruitment, preparation, and retention initiatives encourage ambitious, college-aged students through tuition scholarships, training, and guaranteed job placement upon program commitment. Typically, these perks will be given in exchange for a minimum commitment to teach in a particular location.
    - **Evidence base:** No evidence base.
- **Provider:**
  - **Memphis Teacher Residency**
    - **Overview:** The Memphis Teacher Residency is a faith-based teacher training and mentorship initiative that provides a stipend for a 12-month training period, including graduate education, followed by a commitment to work for three consecutive years in a high-need Memphis school.<sup>48</sup>
    - **Geography:** Memphis.
    - **Scale:** 28 program completers in 2012 – 2013 cohort.
    - **Concerns:** Evidence base; ability to scale; current operations; connection with other ongoing efforts, such as the Teacher Effectiveness Initiative funded through the Gates Foundation.
  - **Teacher Town, USA and Relay Graduate School of Education / University of Memphis teacher prep programs**
    - **Overview:** Teacher Town, USA is a teacher recruitment and training initiative that is led by Shelby County Schools Superintendent Dorsey Hopson and Achievement School District Superintendent Chris Barbic and funded by some of Tennessee's

<sup>47</sup> Bill Dries, "Teacher Town," *The Daily News*, March 23, 2013, <http://www.memphisdailynews.com/news/2013/mar/23/teacher-town/>.

<sup>48</sup> <http://memphistr.org/program/resident/>.

Race to the Top grant funding as well as the Gates Foundation's Teacher Effectiveness Initiative. However, exact strategic plans have been hard to verify, although conversations with those with knowledge of the Teacher Town, USA plans say that the project is already underway. Teacher Town will leverage the education preparation certification program run by Relay Graduate School of Education via the University of Memphis. The program will recruit juniors in college that have auditioned in a summer institute, and will provide a teaching certification upon graduation, as well as professional development and placement support in collaboration with the Achievement School District, CMOs, and the Shelby County Schools Innovation Zone.

- **Geography:** Memphis; the Achievement School District and Priority Schools.
  - **Scale:** 1,000 teachers over next five years are needed through the program;<sup>49</sup> 25 participants expected in first Relay / GSE cohort.
  - **Concerns:** Coordinating efforts with other teacher training initiatives; evidence base; need for additional funding.
- **Payor:**
  - **Philanthropy:** Hyde, Poplar, and Pyramid Peak are potential payors. Research examining teacher value-added finds that replacing a low-value-added teacher with an average teacher even for one year increases the average-sized classroom's lifetime income by nearly \$250,000, reduces the probability of teen pregnancy, and raises 401(k) savings rates, suggesting that the beneficial effects from excellent teachers are even higher than the costs of teacher turnover.<sup>50</sup> However, because of the long-term and somewhat abstract nature of the benefits and cost savings, it might take an entity with patience to be a willing investor, making philanthropies ideal partners for this opportunity.
- **Recommendation:** Teacher preparation likely has a strong ROI, but a lack of long-running interventions and longitudinal evidence challenges immediate PFS participation. A demonstration project would support external evaluation of an intervention, including tracking of teacher preparation, retention, and student achievement.
- **Next steps:** Work with local teams to better size the 'need' for teachers; continue to work with Relay and Teacher Town teams to refine the program model and position outcomes evaluation for long term PFS program; examine the evidence base or ongoing evaluations of teacher training initiatives.

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<sup>49</sup> Betsy Doyle and Mike Perigo, "Investing in 'Teacher Town, USA,'" *Stanford Social Innovation Review*, September 18, 2014, [http://www.ssireview.org/blog/entry/investing\\_in\\_teacher\\_town\\_usa](http://www.ssireview.org/blog/entry/investing_in_teacher_town_usa).

<sup>50</sup> Raj Chetty, John N. Friedman, and Jonah E. Rockoff, "The Long-Term Impacts of Teachers: Teacher Value-Added and Student Outcomes in Adulthood," National Bureau of Economic Research Working Paper No. 17699 (January 2012), 4, 71.

## Memphis PFS Feasibility Project

### Project Road Maps

**Project context.** Social Finance was engaged by the Pyramid Peak Foundation to assess the feasibility of using Pay for Success financing to expand evidence-based interventions in Memphis and Shelby County, to address: blight (mitigation and asthma management), criminal justice and workforce development, maternal health and home visiting, early childhood programming, and teacher training.

The need is massive: children visit the emergency department at Le Bonheur Children’s Hospital almost 3,500 times per year for asthma related care; approximately 8,000 citizens are released annually from Shelby County correctional facilities; the infant mortality rate is the third highest in the nation. As the public cost of serving these populations continues to rise, the need for non-profit organizations and private foundations to supplement and complement services provided by the City and County has increased.

**A potential solution.** With Pay for Success (PFS), private impact investors provide multi-year funding to growth-ready nonprofits operating cost-effective programs that have demonstrated the potential to substantially improve the lives of Memphians. If a PFS-financed program achieves successful outcomes—defined and agreed upon unambiguously in advance by all parties to the contract—government repays investors their principal plus a modest rate of return. If outcomes are not achieved, the government is not obligated to repay investors.

**Methodology.** Potential initiatives were assessed for PFS feasibility against the criteria required for a successful project: substantiation of 1) concentrated and definable population in need, 2) evidence-based intervention serving the vulnerable population, 3) service providers capable of implementing interventions, 4) potential ‘payors’ for a PFS outcomes payment, and 5) positive social Return on Investment (ROI) with concentrated benefits and savings within a lead agency (likely the ‘payor’ of outcomes).

In the course of applying the feasibility framework, Social Finance learned from:

- more than 60 interviews with issue area experts and academics, local operators, politicians, government officials, and philanthropists;
- public data sources including reports from: the American Community Survey, Shelby County Department of Corrections, the Urban Child Institute, and the University of Memphis Neighborhood by Neighbor report; and,
- private data sources from providers.

The engagement was designed in 2 phases:

- *Phase I:* Landscape assessment—assessment of best-fit PFS issue areas based on size and concentration of population in need, existence of evidence-based interventions, and likelihood of savings generation and positive outcomes relevant to a specific government agency.
- *Phase II:* Feasibility assessment—development of action steps for launching most PFS-ready projects, including definition of: local service providers capable of expanding and implementing evidence-based interventions, suggested project parameters, directional return on investment (ROI), and identification of likely payor of outcomes.

## **Next Steps for PFS Success**

This document serves as the summary report for phase II of the project, and is intended to provide a “Road Map” for launching each of the PFS ready projects described below. Each Road Map is divided into three sections: summary, directional project parameters, and next steps and conversations necessary with stakeholders to advance a project.

## **Project Summaries**

### ***Asthma management***

Asthma management is a high potential PFS opportunity, given the strong intervention managed by the Changing High-Risk Asthma in Memphis through Partnership (CHAMP) team at Le Bonheur Children’s Hospital. The intervention is derived from evidence-based practices, and has unique access to utilization data via the TennCare claims database, a strong operating model, and an ROI founded in cashable savings plus other important health and educational outcomes (e.g. school attendance). While the majority of savings likely accrue to the State of Tennessee, asthma management and care coordination is a high-potential PFS opportunity with the right payors involved.

### ***Workforce development / criminal justice***

Workforce development in criminal justice represents a strong opportunity for a PFS project. Efforts to reduce recidivism via workforce development training have a strong evidence base nationally, and yield savings and benefits to the state. However, no local provider is yet large enough to absorb funding raised via PFS. To launch a PFS project in this area, it would likely be necessary to recruit a national provider to Memphis. The Center for Employment Opportunities (CEO) is interested in expanding to Memphis, if transitional jobs and a payor are secured.

### ***Maternal health and home visiting***

Home visiting is a promising PFS project in the future. Strong national providers are currently operating in Memphis, including the Nurse Family Partnership (NFP) and Healthy Families America (HFA), but are not ready to absorb PFS funding. Expansion is promising if NFP experiences success in current efforts to improve implementation in Memphis (including recruitment, enrollment, and participation rates).

## **Project Summary – Pediatric Asthma Management**

Le Bonheur Children's Hospital of Memphis has developed a strong intervention and infrastructure to administer asthma management programming for children who experience asthma-related hospital visitations. Changing High-Risk Asthma in Memphis through Partnership (CHAMP) has demonstrated early results such as reduced healthcare utilization that generates a positive ROI for the public sector; however, this return is likely realized across various government agencies. While the majority of savings likely accrue to the State of Tennessee's Managed Care Organizations (MCOs) through TennCare, asthma management and care coordination is a high-potential PFS opportunity with state involvement.

### **Target population and geography**

Children in Memphis, particularly black and female children in poverty, are at an elevated risk for asthma-related hospitalization. Asthma prevalence tends to be higher for children than for adults in Tennessee, and children ages one and four had the highest inpatient hospitalization rates for asthma over 2001-2010. The 2006-2010 emergency department (ED) visit rate for black children in Tennessee was more than four times the rate for white children (2,481/100,000 vs. 580/100,000). Shelby County had the second highest age-adjusted rate of asthma-related hospitalizations for any county in Tennessee. Le Bonheur Children's Hospital has approximately 3,500 asthma-related visits each year.<sup>1</sup>

### **Intervention and provider**

CHAMP is specifically designed to find high risk children between the ages of 2 and 18 with more than one hospital admission, one Intensive Care Unit admission or two Emergency Department/Urgent Care visits in the past year. Children with two or more short courses of steroid prescriptions (sometimes referred to as "steroid bursts") for asthma in the past year were also eligible. All children must be enrolled in TennCare, Tennessee's Medicaid program, to receive services. The CHAMP program enrolled 465 children in 2014, and expects 825 children to be enrolled in 2015, and 1,185 to be enrolled in 2016. Currently, there is a three month waitlist for clinical scheduling.<sup>2</sup>

Once enrolled, the CHAMP program conducts clinical assessment and health planning meetings with specialists, and provides ongoing education and home assessment via community health workers to ensure that children's asthma is managed. These practices draw from evidence-based practices (more than 10 randomized evaluations have studied the impact of home visiting and education on asthma management), and while CHAMP has not completed its external evaluation—the program has produced before-and-after estimates of effect using the TennCare claims database.<sup>3</sup>

### **Return on investment and payor**

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<sup>1</sup> PRNewswire, "Le Bonheur Children's Hospital Fights Pediatric Asthma," November 26, 2012, <http://www.prnewswire.com/news-releases/le-bonheur-childrens-hospital-fights-pediatric-asthma-180889411.html>.

<sup>2</sup> CHAMP website.

<sup>3</sup> For a clearinghouse of other asthma intervention evaluations, see: [http://www.thecommunityguide.org/asthma/supportingmaterials/SET\\_multicomponent.pdf](http://www.thecommunityguide.org/asthma/supportingmaterials/SET_multicomponent.pdf).

Based on the TennCare claims data analyzed by the CHAMP team, initial ROI estimates indicate a return on investment of approximately 1.4 for one year of program administration and patient follow-up. These calculations expect before-and-after estimates of utilization of services to be indicative of the true effect of the CHAMP initiative on asthma-related medical costs.

However, because TennCare reimburses health care providers (e.g. Le Bonheur) via the State's three MCOs, and the Federal government reimburses TennCare for approximately 2/3 of pediatric asthma related costs, the cost savings generated by CHAMP accrue at different rates to different stakeholders. MCOs, because they aggregate both State and Federal reimbursements, would realize the entirety of savings, while the State of Tennessee would realize only 1/3 of the savings via TennCare reduction. Given this context, either the MCOs could act as a payor of outcomes; State preferences as articulated by the Department of Health and TennCare will direct strategy on securing a payor of outcomes.

Savings to:	City of Memphis	Shelby County	State of Tennessee (TennCare)	Managed Care Organizations (MCOs)
	<i>Lower absenteeism (labor market and school attendance / performance)</i>	<i>Lower absenteeism (labor market and school attendance / performance)</i>	<i>TennCare payments (reduced because of Federal Medicaid reimbursement)</i>	<i>TennCare reimbursements via MCOs (includes full TennCare cost—Federal and State)</i>
Annual Cost per participant*	\$1,385	\$1,385	\$1,385	\$1,385
1-Year Savings per participant+	Lower absenteeism, higher student achievement	Lower absenteeism, higher student achievement	\$700	\$2,000
<b>1-Year Program ROI</b>	<b>N/A</b>	<b>N/A</b>	<b>50%</b>	<b>140%</b>

Social Finance has initiated conversations with representatives from the MCO community (Mitch Graves), Tennessee Department of Public Health (Dr. Michael Warren), and TennCare (Dr. Vaughn Frigon). The Department of Public Health is particularly interested in the possibility of PFS emphasizing a move to preventative care, and suggested that ongoing conversation with the Commissioner of Health (Dr. John Drezyzewski) indicates interest from the department. The TennCare community is also engaged, although the securing partnership in a formal way will require additional resources.

### **Next steps roadmap**

Below is an illustrative set of parameters for a CHAMP-based project in Memphis. These parameters are intended to be a starting point for working group discussions, and do not represent discussions with CHAMP, investors, or potential government payors. **To execute a PFS contract with CHAMP, the Memphis working group must: establish the MCOs as outcome payors; examine more complete, granular data on costs and outcomes; and firmly establish a precise intervention model.**



## Illustrative PFS checklist for CHAMP

<u>Description</u>		<u>Notes</u>
<b>Project Parameters</b>		
Provider	Changing High Risk Asthma in Memphis through Partnership (Le Bonheur Children's Hospital)	Program consists of home visits and clinical appointments with Le Bonheur home visitors and medical specialists
Geography	High poverty neighborhoods in Shelby County, particularly Memphis (the "C")	Southeast Downtown and Whitehaven; high poverty neighborhoods are correlated with asthma-related hospitalizations as well as TennCare eligibility
Term	4 – 5 years including evaluation	Potential duration of PFS project for CHAMP
Treated Population: Medicaid-eligible children with asthma in Shelby County	Children who visit Le Bonheur for asthma-related causes	Residents of Shelby County; eligible for TennCare
Population Definition	At-risk pediatric asthma patients	Pediatric asthma patients who seek care at Le Bonheur, regardless of address / TennCare status; at current capacity, CHAMP could serve between 600 and 1,200 patients per year
Measurement Period	18 months to 3 years of follow-up	
Minimum Operating Capital Need	~\$3.5M	Includes serving 600 patients per year for four years, does not include: transaction costs, outcomes payments
<b>Payments Terms</b>		
Payment Metric	Asthma-related medical costs	Lower asthma-related medical costs through effective management of chronic asthma are reflected in lower costs to TennCare and MCOs
Payment Metric	Absenteeism	Lower school and work absenteeism may have benefits such as increased productivity and graduation rates
Payor	TennCare	Willingness to serve as payor is lowered due to state-federal Medicaid funding split; Also MCOs responsible for all reimbursements, limiting TennCare's role
Payor	MCOs: AmeriGroup, BlueCare, and UnitedHealthcare	Unlike TennCare, cost reductions are fully realized by MCOs, giving them the largest financial incentive to participate in a PFS contract
Payor	Shelby County Weatherization Fund	Could be used to improve substandard housing that could exacerbate asthma symptoms, approximately \$1.5M



Payor	TVA Funding	Funding for environmental and air quality improvements could potentially be used for home remediation function with CHAMP to access this funding
<b>Evaluation</b>		
Methodology	RCT, Pre-Post	Pre-post data may allow for a “term sheet” model
Measurement Period	1 year service delivery, 1 year follow-up	Most asthma studies focus on immediate health care utilization savings, possibility to expand follow-up to evaluate long-term cost savings a possibility
Third Party Evaluator/Validator	TBD	

### Partnership status

Payor: Two partnerships must be formed for a successful asthma management PFS initiative.

1. TennCare: Social Finance and Le Bonheur must collaborate with TennCare to gauge their interest in the project. Since TennCare costs are directly affected by asthma-related health care costs, they stand to reap a portion of the financial benefit of scaling up CHAMP.
2. MCOs: Managed Care Organizations (MCOs) administer TennCare reimbursements on behalf of the State of Tennessee. Because the State of Tennessee reaps only a portion of the benefits from lower TennCare costs (a function of the divided funding requirements between State and Federal government), TennCare could encourage the MCOs to participate as PFS outcomes payors. The financial incentive for MCOs to participate is compelling since they bear all costs from asthma-related health care costs, which bolsters the return on investment from preventing these expenses relative.

Moreover, because the State of Tennessee enacted episodes of care reimbursement reform, the MCOs now share half of cost savings from effective asthma management programs. They can then use these cost savings as part of their pool of funds for success payments, reinforcing the case for them to serve as payors. The episodes of care incentive payments that come to Le Bonheur could be used to scale the CHAMP program at the margin as well.

Name	Organization	Position	Last Contact	Notes
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**POTENTIAL PAYORS**

Dr. John Dreyzehner	Tennessee Department of Health	Commissioner	Pending	Conversation upcoming with Dr. Michael Warren about the use of PFS to fund home visiting programs and CHAMP
Dr. Vaughn Frigon	TennCare	Chief Medical Officer	1/21/15	Conversation will introduce PFS concept and seek to elicit support and enthusiasm for funding CHAMP through PFS
Dr. Michael Warren	Tennessee Department of Health	Director, Division of Family Health and Wellness	12/8/14	Will discuss the potential to use PFS for public health programs (e.g., CHAMP) with Commissioner Dreyzehner

Intervention: A PFS project relies on continued evolution of the CHAMP program, including ongoing analysis of impact and scale strategy. While CHAMP is focused on coordinated medical care and home visits for high-risk pediatric asthma patients, Le Bonheur Children's Hospital has been involved as a founding member of a Healthy Homes Partnership within Shelby County. The Partnership is a cross-sector collaboration bringing together legal, medical, and community development organizations such as the University of Memphis Law School, CHAMP, and Habitat for Humanity to systematically address asthma related issues. In particular, CHAMP is interested in coupling its medical intervention with a home remediation strategy to improve the living conditions of its patients' families. CHAMP has applied for technical advice from the Green & Healthy Homes Initiative (GHHI), and if the program is awarded a grant, CHAMP could be expanded to integrate a holistic asthma management and remediation strategy into its current medical intervention.

Conversations with CHAMP officials suggest that the program can serve between 800-1,000 children under current staffing levels. Enrollment challenges exist around serving broad groups of high-need families who might be more difficult to reach or are ineligible by CHAMP criteria. Given current capacity constraints, Social Finance has used a lower estimate for the number of children served to illustrate minimum financing needs for a potential PFS project.

Name	Organization	Position	Last Contact	Notes
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**SERVICE PROVIDER**

Meri Armour	Le Bonheur Children's Hospital	Chief Executive Officer	Pending	After contacting TennCare, we will need to inform leadership of any plans to proceed with PFS to secure institutional approval
Cathy Marcinko	Le Bonheur Community Health & Well-Being	Grant Development Coordinator	12/22/14	Enthusiastic about the potential for PFS to alleviate need for fundraising to sustain CHAMP after the end of the CMS Innovation Grant

Dr. Christie Michael	Le Bonheur Children's Hospital	Medical Director of CHAMP, Specialist	11/1/2014	Concluded that CHAMP has an ability to scale at current staffing levels to approximately 800-1,000 participants
Maureen O'Connor	Le Bonheur Children's Hospital	Vice President, Institutional Advancement	12/31/14	Instrumental in arranging conversations with TennCare and TDH officials
Susan Steppe	Le Bonheur Community Health & Well-Being	Program Director of CHAMP	12/18/14	Follow-up request to receive individual-level data for costs and outcomes before and after CHAMP enrollment

## **Project Summary – Workforce Development and Life Skills Training for Returning Citizens**

The Center for Employment Opportunities (CEO) is an evidence-based provider of job training, transitional employment, full-time job placement, and retention services to citizens returning to the community from prison. ROI analysis on these evidence-based programs indicates significant social and financial return to government, positioning the intervention well for PFS. However, no local provider is yet large enough to absorb funding raised via PFS and expand services to the necessary scale. To launch a PFS project in this area, it would likely be necessary to recruit a national provider to Memphis. CEO is interested in expanding to Memphis, if transitional jobs and a payor are secured.

### **Target population and geography**

Approximately 5,000 citizens are released from State penitentiaries in Tennessee each year. There is a particular need to reduce recidivism in heavily impoverished ZIP codes within Shelby County as there is a strong association between poverty and recidivism. There is only one State prison in Shelby County, which contains approximately 450 beds. However, if we assume that the distribution of the hometowns of returning citizens is proportional to the hometowns' populations, then there are approximately 1,000 formerly incarcerated individuals each year returning to Shelby County.

### **Intervention and provider**

CEO's services focus on the most at-risk citizens, with a particular concentration on adults ages 18-25. A 2011 random assignment study by evaluator MDRC found that CEO's model generated a seven percentage point decline in the proportion of formerly incarcerated individuals who are ever incarcerated for a new crime and a fifteen percentage point increase in the proportion of individuals who ever held a job over the three year evaluation period.<sup>4</sup> CEO is currently involved in a four-year PFS deal to provide employment and life skills training to returning citizens within certain prisons in New York State, and also operates in California and Oklahoma. CEO had 3,409 total enrollments in its fiscal year 2013, with 1,735 total placements over the period; the organization aims to serve 4,000 formerly incarcerated individuals in fiscal year 2014.

### **Return on investment and payor**

Initial analysis for a CEO project in Memphis indicates an ROI of more than 2; these savings accrue to the State, however, as CEO works primarily with individuals released from the State prison system. According to County officials, the average bed-day cost in Shelby County Department of Corrections facilities is approximately \$70, providing a clear rationale for the State to serve as a payor of outcomes.

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<sup>4</sup> Cindy Redcross, et al., "More than a job: final results from the evaluation of the Center for Employment Opportunities (CEO) transitional jobs program," OPRE Report 18 (2011).

Savings to:	City of Memphis / Shelby County	State of Tennessee
	<i>Higher rates of employment; lower costs of crime</i>	<i>Fewer prison/jail bed-days; higher employment; lower welfare/Medicaid utilization</i>
Cost per participant	\$6,100	\$6,100
Transitional job costs	\$3,000	\$3,000
Other service costs	\$3,100	\$3,100
Savings per participant	Diffuse; difficult to capture at county level	\$12,300
Fewer bed-days	N/A	\$4,600
Value of labor	N/A	\$4,800
Lower victim costs	N/A	\$2,300
<b>Program ROI</b>	<b>N/A</b>	<b>200%</b>
<b>Program ROI (excluding transitional jobs)</b>	<b>N/A</b>	<b>400%</b>

### Next steps roadmap

In preliminary conversations with CEO, we know that the organization is completing a strategic plan which includes Tennessee as a high potential state for expansion, based on internal analysis. (This analysis is distinct from any Social Finance-led PFS assessment.) CEO uses two critical criteria to identify expansion opportunities:

1. *Demonstrated need*: typically defined as two cities within a state with ‘need’ / potentially eligible population, and
2. *Secure transitional jobs*: paid, dedicated job slots (ideally two work crews / six individuals per crew) to give individuals released from prison approximately four month transitional job experience.

These requirements ensure that the program has sustainable funding, and access to a large enough population that the organization can leverage operational economies of scale to generate savings that outweigh the costs of program implementation.

**Should the working group secure transitional jobs and a government payor, below is an illustrative set of parameters for a CEO-based project in Memphis. These parameters are intended to be a starting point for working group discussion, and do not represent discussions with CEO, investors, or potential government payors.**

## Illustrative PFS checklist for CEO

	<u>Description</u>	<u>Notes</u>
<b>Project Parameters</b>		
Provider	Center for Employment Opportunities (CEO)	CEO believes it could scale up in Shelby County within 12 months, but requires a payor and transitional jobs
Geography	High poverty and crime neighborhoods within Shelby County	Arlington and North Memphis
Project Timeline	2-3 years of enrollment; 3-5 years of service delivery	6 years of measurement concurrent with service provision
Treated Population	Typically formerly incarcerated men between the ages of 18 and 25	CEO's service population is typically young, urban, minority men from low-income households; CEO prefers to target high-risk individuals
Population Definition	All formerly incarcerated individuals who are residents in Shelby County and returning to the community	The minimum number that CEO would be willing to serve is 150 per year (2 work crews of 6 can serve 75 individuals each per year)
Minimum Operating Capital Need	~\$2.5 - \$3.5M	Value depends on ability of County to secure transitional jobs; does not include: transaction costs, outcomes payments
<b>Payments Terms</b>		
Payment Metric	Employment (weeks worked over 12 months, annual earnings)	Measured by Unemployment Insurance claims from Department of Labor
Payment Metric	Re-incarceration (indicator of whether individual was involved with justice system)	Definitions of recidivism vary but could include time in prison, instances of incarceration, violations of parole, and other infractions. Measured from Department of Corrections data
Payor	State of Tennessee: Fewer bed-days results in lower costs; decreased unemployment insurance and increased tax revenue	Every bed-day has a marginal cost to the State; additional costs from lower criminal justice processing costs and victimization costs; higher tax revenues and lower unemployment insurance
<b>Evaluation</b>		

Methodology	Randomized evaluation or quasi-experimental matching methods	
Measurement Period	6 years	
Third Party Evaluator/Validator	TBD	In New York State, the evaluator was NYS Department of Corrections and Community Supervision (DOCCS)

## Partnership status

### Payor:

- Secure outcomes payor: The State of Tennessee, which provides significant funding to Shelby County's Department of Corrections, has a vested financial interest in higher employment (lower welfare) rates and reduced employment; securing the State as a PFS outcomes payor will be critical to moving forward with a project.

Name	Organization	Position	Last Contact	Notes
<b>PAYOR</b>				
Alayna Duffel	Tennessee Department of Correction	Director, Office of Reentry Services	Pending	Conversation scheduled to reintroduce PFS concept, gauge TDOC interest as outcomes payor, and build transitional jobs database
William Gupton	Tennessee Department of Correction	Assistant Commissioner	2/4/15	Indications from other contacts suggest that Gupton, through his familiarity with rehabilitative services and PFS, could be important for executing a project
Senator Mark Norris	Tennessee General Assembly	State Senator	Pending	Senator Norris has supported Mayor Luttrell with work on the Council of State Governments' efforts to assess revamping reentry efforts
Derrick Schofield	Tennessee Department of Correction	Commissioner	Pending	Conversation with Alayna should lead to introduction with Commissioner Schofield and higher-level conversations about TDOC as payor

### Intervention:

- Secure transitional jobs: Identify and secure public / private transitional job partners, representing at least two work crews of six individuals (serving 75 individuals per team per year).

2. Secure enrollment capacity: Ensure that the Shelby County Department of Corrections can guarantee at least 400 formerly incarcerated individuals for CEO programming.

Name	Organization	Position	Last Contact	Notes
<b>SERVICE PROVIDER</b>				
Antonio Adams	City of Memphis	Deputy Director, Division of General Services	Pending	Scheduling conversation to build list of contractors used by General Services Division for transitional jobs database
Janet Hooks	City of Memphis	Director, Division of Parks and Neighborhoods	Pending	Scheduling conversation to build list of contractors used by Parks and Neighborhoods Division for transitional jobs database
Sam Schaeffer	CEO	Executive Director and CEO	12/12/14	Laid out conditions of expansions of CEO in Shelby County; Tennessee is one of the highest priority states for CEO
Kevin Woods	WIN	Executive Director	12/23/14	Ambitious plans for revamping WIN, but not currently able to scale; indicated that most WIN job placements in public sector entities or those indebted to public sector



## Project Summary – Home Visiting (Nurse-Family Partnership)

Home visiting is a promising potential PFS project, given the deep evidence in the field, potential for significant social ROI, and precedent set by other PFS transactions nationally. However, at present, Memphis lacks a provider ecosystem to support the scale that would be required for such a project.

### Target population and geography

Approximately 8,000 children were born in Shelby County below the poverty line in 2012, providing one estimate for the number of families that might benefit from home visitation services. Negative birth outcomes such as preterm births and the percent of women not receiving prenatal care in Shelby County were 12.4% and 5.6%, respectively—above state and national averages, driven by especially high incidence rates among black women in the County.

### Intervention and provider

Nurse Family Partnership (NFP) is an evidence-based home visiting service that meets with first-time Medicaid-eligible mothers before the 28th week of gestation through year 2 of the child's life. NFP focuses on reducing negative birth outcomes by educating each expectant mother on healthy habits for herself and her child, including smoking cessation, lower negligence and abuse, and fewer behavioral problems. NFP has been evaluated through several well-conducted randomized experiments with long-term follow-up for mothers and their children in different settings. NFP maintains franchises in 44 states and serves 30,000 first-time Medicaid-eligible mothers and their children nationally each year.

### Return on investment and payor

Enrolling in TennCare is a part of the home visiting process, and therefore avoided costs generate a positive ROI to the state from fewer hospitalizations from childhood injuries, as well cost savings from negative effects of preterm births, including lifetime and neonatal intensive care unit (NICU) costs. Early analysis indicates directional ROI of approximately 2 for home visiting programs in Memphis.

Savings to:	City of Memphis	Shelby County	State of Tennessee	Federal
	<i>Labor market outcomes, criminal justice</i>	<i>Labor market outcomes, criminal justice, lower special education costs</i>	<i>TennCare, special education and criminal justice, City tax revenue</i>	<i>Medicaid, Federal income taxes, criminal justice</i>
Cost per participant	\$10,000	\$10,000	\$10,000	\$10,000
Savings per participant	Some benefits through better labor market and criminal justice outcomes	Some benefits through better labor market outcomes and lower special education costs	\$14,900	\$20,200

<i>Medical (TennCare)</i>	N/A	N/A	\$2,300	\$5,400
<i>Special Education</i>	N/A	N/A	\$1,400	\$1,800
<i>Work and Criminal Justice</i>	N/A	N/A	\$11,200	\$13,000
<b>Program ROI</b>	<b>N/A</b>	<b>N/A</b>	<b>150%</b>	<b>200%</b>

### Next steps roadmap

Nurse Family Partnership (NFP) also has extensive evidence and a strong set of outcomes that make them attractive as a service provider candidate for a PFS project. Social Finance is currently structuring transactions with NFP in New York and South Carolina, and exploring possible projects in California. NFP also recently agreed to try to standardize outcomes for PFS projects, which may accelerate future endeavors. However, the organization is assessing geographic priorities for expansion while building their capacity to support PFS projects, as a part of a change in leadership in 2014. **Given this context, Memphis should check back with NFP on expansion priorities in early Spring 2015.**

Below is an illustrative set of parameters for an NFP-based project in Memphis. This is meant as a starting point for working group discussion, and does not represent discussions with NFP, investors, or potential government payors.

### **Illustrative PFS checklist for NFP**

<u>Description</u>		<u>Notes</u>
<b>Project Parameters</b>		
Provider	Nurse Family Partnership (NFP) / home visiting intervention	Leading evidence-based social service provider
Geography	High poverty neighborhoods in Memphis	Potentially Arlington, North Memphis, and Frayser
Term	Duration of service delivery	5-7 years
Treated Population	First-time mothers low income mothers	
Population Definition	Mothers eligible for Medicaid	Enrollment and first home visit no later than the end of the 28 <sup>th</sup> week of pregnancy; no estimate on number served, as NFP is not yet ready to estimate capacity to scale
Measurement Period		5-7 years
<b>Payments Terms</b>		
Payment Metric	Preterm births (before 37 weeks)	Associated with infant mortality and other negative consequences
Payment Metric	Injuries (proxy for neglect and abuse)	
Payment Metric	Birth spacing (months between	Ideal birth spacing per NFP discussion is 24 months

	births)	
Payment Metric	Participation rate / visits between nurse and mother	Process metric designed to account for patient engagement
Payor	State of Tennessee / TennCare, MCO, or interested local philanthropy acting as private payor of outcomes	Savings accrue to TennCare via avoided negative birth outcomes, abuse, Preterm births, injuries to children, and birth spacing
<b>Evaluation</b>		
Methodology	Randomized evaluation	Randomly assign participants to receive NFP or not and then measure outcomes
Measurement Period	7 Years to complete evaluation	
Third Party Evaluator/Validator	TBD	J-PAL North America has been selected as the evaluator for the South Carolina and New York State PFS projects

### Partnership status

Payor: Social Finance is working with partners at Le Bonheur Children's Hospital to arrange conversations with Tennessee Department of Health and TennCare officials over the coming weeks. These conversations may lay the ground work for a PFS project, but have not focused on maternal health. Given the context and timing of a potential Memphis expansion, additional conversations with the State of Tennessee / TennCare should be focused on consensus building, rather than buy-in to a specific project.

Name	Organization	Position	Last Contact	Notes
<b>POTENTIAL PAYOR STAKEHOLDERS</b>				
Dr. John Dreyzehner	Tennessee Department of Health	Commissioner	Pending	Conversation upcoming to discuss potential payor role with home visiting programs with Dr. Michael Warren
Dr. Vaughn Frigon	TennCare	Chief Medical Officer	1/21/15	Conversation will introduce PFS concept and seek to elicit support and enthusiasm for funding home visiting programs through PFS
Dr. Michael Warren	Tennessee Department of Health	Director of Division of Family Health and Wellness	12/8/14	Will discuss potential to use PFS to fund home visiting programs with Dr. John Dreyzehner, TDH Commissioner

Provider: NFP is evaluating expansion strategy internally, as a part of a recent transition in leadership and strategic planning occurring within NFP's National Service Office (NSO). Social Finance will engage with our NSO partners to clarify their appetite for expanding in Shelby County.

Should NFP be unable to expand, the working group could revisit alternative home visiting programs, but a lack of evidence will continue to be a challenge.

Name	Organization	Position	Last Contact	Notes
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#### SERVICE PROVIDER

Tamar Bauer	Nurse-Family Partnership	Chief Policy and Government Affairs Officer	12/19/14	Key contact for national PFS initiatives; need to update on potential NFP PFS project if interested payor is identified
Roxane White	Nurse-Family Partnership	Chief Executive Officer	Pending	White will be a key voice for determining NFP'S PFS outlook for Memphis

Implementing agency: NFP is a franchise model where the NSO is responsible for licensing new sites, overseeing model fidelity, and evaluating the program's effectiveness while local implementing agencies manage the day-to-day operations of the program. Officials at the Department of Health and Le Bonheur Children's Hospital who are responsible for implementing NFP in Memphis have noted that the need for NFP's services outstrips current service provision levels.

However, conversations with implementing agencies have hinted at challenges in recruitment and referral. For example, as of the Fall of 2014, there were eight NFP nurses serving approximately 200 mothers: indicating utilization of services below estimated demand in Shelby County. More recent conversations have suggested that enrollment and recruitment challenges for both nurses and families have eased somewhat, though it is unclear if Le Bonheur has found a way to reach more at-risk mothers. Collaboration with the Early Childhood Success Coalition, and hiring employees focused on enrollment have had particular impact. Both the NSO and NFP local agencies must feel comfortable with enhanced enrollment strategy to increase participation rates before expansion.

Name	Organization	Position	Last Contact	Notes
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#### SERVICE PROVIDERS

Sandra Madubuonwu	Le Bonheur Community Health & Well-Being	Director of Community Programs	10/28/14	Oversees the local implementation of NFP; sees significant capacity to scale
Cathy Marcinko	Le Bonheur Community Health & Well-Being	Grant Development Coordinator	12/22/14	Enthusiastic about the potential for PFS to alleviate need for fundraising to sustain home visiting programs.